

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: ROMAN SCHERTLER

Serial No.: 08/962,776

Group Art Unit: 3206

Filed: NOVEMBER 3, 1997

Examiner: K. NGUYEN

Title: A VACUUM PROCESS APPARATUS

AFTER-FINAL REPLY UNDER 37 CFR § 1.116
EXPEDITED HANDLING REQUESTED

Box AF

Commissioner for Patents
Washington, D.C. 20231

Sir:

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TECHNOLOGY CENTER R3700

In response to the Office Action mailed on or about June 28, 2002, applicants hereby surrender original Letters Patent No. 5,245,736. An executed Third Supplemental Declaration was submitted on July 9, 2002 and acknowledged by the Examiner in the Advisory Action mailed on or about July 23, 2002.

All rejections are now deemed fully addressed; accordingly, favorable action and early allowance are requested.

If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and

please charge any deficiency in fees or credit any overpayments to Deposit
Account No. 05-1323 (Docket #622/40901CO).

Respectfully submitted,

September 27, 2002



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80310.031



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The Commissioner of Patents and Trademarks

*Has received an application for a patent
for a new and useful invention. The title
and description of the invention are en-
closed. The requirements of law have
been complied with, and it has been de-
termined that a patent on the invention
shall be granted under the law.*

Therefore, this

United States Patent

*Grants to the person or persons having
title to this patent the right to exclude
others from making, using or selling the
invention throughout the United States
of America for the term of seventeen
years from the date of this patent, sub-
ject to the payment of maintenance fees
as provided by law.*

Bence Lehman

Commissioner of Patents and Trademarks

Linda P. Elliott

Attest

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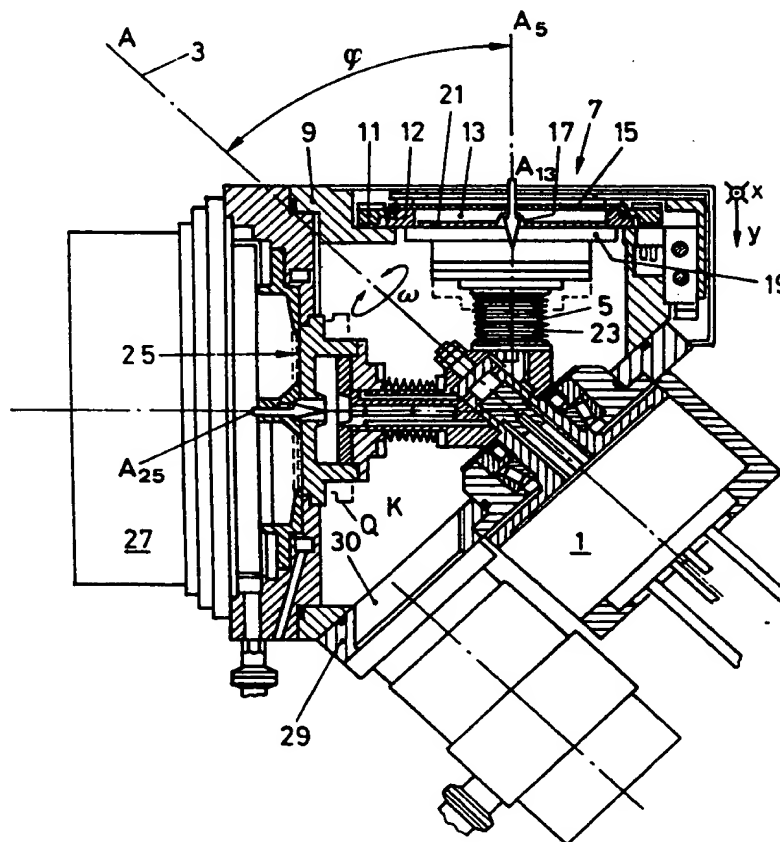
US005245736A

United States Patent [19][11] **Patent Number:** **5,245,736****Schertler**[45] **Date of Patent:** **Sep. 21, 1993**[54] **VACUUM PROCESS APPARATUS**[75] **Inventor:** Roman Schertler, Wolfurt, Austria[73] **Assignee:** Balzers Aktiengesellschaft,
Liechtenstein, Liechtenstein[21] **Appl. No.:** 888,111[22] **Filed:** May 26, 1992[30] **Foreign Application Priority Data**

May 31, 1991 [DE] Fed. Rep. of Germany 4117969

[51] **Int. Cl.⁵** B23B 15/00; B25B 11/00[52] **U.S. Cl.** 29/33 P; 29/563;
29/559; 269/21[58] **Field of Search** 29/33 P, 563, 559;
269/21, 57, 61; 279/3[56] **References Cited****U.S. PATENT DOCUMENTS**3,915,117 10/1975 Schertler 118/719 X
4,652,135 3/1987 Ono 269/21 X**FOREIGN PATENT DOCUMENTS**0136562 2/1983 European Pat. Off. .
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0973293 11/1982 U.S.S.R. 269/21*Primary Examiner*—Joseph M. Gorski
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Edwards & Lenahan[57] **ABSTRACT**

The invention proceeds from a vacuum process apparatus for an article which is processed or treated, resp. at two stations, whereby each station has a charging and/or removing opening for the article. A transporting device is supported for rotation and includes a supporting portion which is successively moved onto the openings of the stations. The process plant is designed in such a manner that the surface normals determined by the surfaces of the openings and the space axis defined by the axis of rotation of the transport device do not run parallel and rather enclose together an angle of 90° or 45°. By such an arrangement it is possible to design extremely compact vacuum vapor deposition apparatuses having a plurality of individual stations, whereby additionally short transporting distances are obtainable and the volumes to be conditioned can be minimized.

29 Claims, 5 Drawing Sheets

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